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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,485	03/12/2001	August Sprock	HM-394PCT	5638

7590

08/14/2002

Friedrich Kueffner
317 Madison Avenue
Suite 910
New York, NY 10017

EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 08/14/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Applicant(s)

09/744,485

Applicant(s)

SPROCK, AUGUST

Examiner

Deborah Y e

Art Unit

1742

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 August 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ they raise the issue of new matter (see Note below);
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 5

Claim(s) withdrawn from consideration: _____

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

10. ☒ Other: PTO-892 + publication copy
Attachment

R sponse to Arguments

Applicant's arguments filed August 5, 2002 have been fully considered but they are not persuasive. The English abstract of JP'650 discloses a steel subjected to hot rolling with a finishing temperature of 800 to 900C (austenitic temperature) followed by a first cooling stage at 5 to 30C/second to Ar1 -550C and then a rapid second cooling stage at 30C/sec or greater to 350- 500C to produce a steel microstructure of ferrite with 1 to 30% martensite . It was argued that the prior art does not teach performing the first cooling stage such that at least 70% ferrite is present before the second cooling stage is begun as recited by the claims. It is the examiner's position that JP'650 teaches the first cooling stage to be Ar1 to 550C. The Ar1 temperature represents the temperature at which austenite converts to ferrite on the iron-carbon phase diagram; hence Ar1 to 500C would be within the ferrite phase range. Moreover, the prior art second cooling stage occurs at 350 to 500C at a rapid cooling rate of 30C/s or more. The martensite transformation would occur at this second stage because the martensitic start temperature is within this temperature range and also martensite can only be produce under very rapid cooling conditions. Very little ferrite would occur at this second stage of cooling because of the rapid cooling rate to a lower^{↑ martensitic} temperature.

Furthermore, note specific prior art examples 4 to 8 in Table 2 on page 274 of JP'650 discloses 10 to 25% martensite with 75 to 90% ferrite . It would seem that 70% ferrite would naturally occur during the first stage of cooling and the 10 to 25% martensite would occur at the second stage of cooling because of their cooling temperature ranges and cooling rates.

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Also even though JP'650 discloses a method for a specific steel composition yet the present invention is a generic method, such would not be a patentable distinction since the method steps are still closely disclosed by JP'650 .


The Materials Science textbook pages have been cited to further depict the state of the art in ferrite and martensite steel phases.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy
August 12, 2002


DEBORAH YEE
PRIMARY EXAMINER